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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/037,630

01/03/2002

J. Blake Scott

2006-419

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03/01/2010

PAUL AND PAUL

2000 MARKET STREET

SUITE 2900

PHILADELPHIA, PA 19103

EXAMINER

MARCANTONI, PAUL D

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

03/01/2010

ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte J. BLAKE SCOTT

Appeal 2009-009393
Application 10/037,630
Technology Center 1700

Decided: February 25, 2010

Before CHARLES F. WARREN, TERRY J. OWENS, and
LINDA M. GAUDETTE, Administrative Patent Judges.

WARREN, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Appellant filed a Request For Rehearing pursuant to 37 C.F.R. § 41.52 on October 21, 2009 (Request), of our Decision entered August 28, 2009, and mailed September 1, 2009 (Decision), wherein we affirmed the Examiner's ground of rejection under 35 U.S.C. § 103(a). Req. 1.

A request for rehearing must comply with 37 C.F.R. § 41.52(a)(1) which specifies in pertinent parts that "[t]he request for rehearing must state with

particularity the points believed to have been misapprehended or overlooked by the Board”; and that “[a]rguments not raised in the briefs before the Board and evidence not previously relied upon in the brief and any reply brief(s) are not permitted in the request for rehearing except as permitted by paragraphs (a)(2) and (a)(3) of this section.” *See also* 37 C.F.R. § 41.37(c)(1)(vii) (“Any arguments or authorities not included in the brief or a reply brief filed pursuant to § 41.41 will be refused consideration by the Board, unless good cause is shown.”). Thus, 37 C.F.R. § 41.52(a)(1) limits “requests to the points of law or fact which appellant feels were overlooked or misapprehended by the Board” and were raised in the brief and any reply brief(s). Manual of Patent Examining Procedure (MPEP) § 1214.03 (8th ed., Rev. 3, August 2005).

Appellant submits that five points in the Decision have been misapprehended or overlooked. Req. 1-5. We consider the points in the order presented in the Request.

Point 1: Overbroad Construction of Claim 1

Appellant submits that our interpretation of claim 1 as encompassing “‘shaping and sizing the mixture into any manner [] of load-bearing structure and curing the load-bearing structure’” does not reflect that “claim 1 specifies [] [t]he specific shape and size of the load bearing structure as *cured* must also satisfy the rutting resistance specified in part (2.1.2) or (2.2.2) of claim 1.” Req. 1, citing Dec. 5.

Appellant argues:

The Board does not point to any part of Polston, or any other prior art, which teaches that *forming and curing a mixture in the form of an aggregate*, or in any other shape, followed by *breaking the cured material into an aggregate*, then *spreading this aggregate on a base* is “equivalent or substantially equivalent” to adding aggregate, whether

cured or not, to a still uncured cementitious mixture, shaping and sizing this mixture into particles before the mixture is cured, and then curing the latter into the load bearing structure actually to be used, to fall within the scope of the claims on appeal.

Req. 1 (emphasis supplied).

Thus, Appellant contends that if the Board is of the opinion “that the process taught by Polston is ‘identical or substantially identical to the claimed processes,’” as we set forth in the Decision at page 14, we should “state so explicitly.” Req. 1-2.

We are not persuaded of error in our Decision in these respects. With respect to Appellant’s claim interpretation position, we did determine that claim 1 encompasses two mixtures, each formed by a different set of steps: “the cementitious mixture [which] is shaped and sized into any manner of load-bearing structure;” and the mixture containing “emulsified asphalt; shaping and sizing the mixture into any manner of load-bearing structure.” Dec. 5. We determined that claim 1 further specifies that “a pozzolanic reaction . . . forms the load-bearing structure” with the “cementitious mixture;” and the “emulsified asphalt” mixture forms the load-bearing structure by “curing the load-bearing structure.” Dec. 5.

Appellant overlooks our further determination that “claim 1 specifies only that the ‘load-bearing structure’ is formed by shaping and sizing prior to curing in either of the two sets of steps, and has at least the specified ‘resistance to rutting’ property.” Dec. 6. Indeed, we gave the claim terms the broadest reasonable interpretation in light of the Specification: “[t]he terms ‘load-bearing structures’ and ‘load-bearing structure’ in the preamble of claim 1 and in the body of the claims are not defined with respect to structure in the claims or in the Specification, and thus encompass any manner of load-bearing structure, including a single layer load-bearing structure, subject to other limitations in claim 1.” Dec.

6. In doing so, we cited Spec., e.g., 4:25-30 and 24:17 to 25:7. Dec. 6. Appellant does not contend that these parts of the Specification do not support our interpretation of the claim terms. Req. 1-2.

Thus, contrary to Appellant's position, we interpreted claim 1 in light of the Specification as encompassing *any manner* of load-bearing structure that can be shaped and sized to any extent with either the "cementitious mixture" or the "emulsified asphalt" mixture, as respectively produced by the two sets of steps specified in this claim, which shaped and sized structure is then "cured" by "pozzolanic reaction" or "curing," respectively, to form any load-bearing structure which satisfies the specified "resistance to rutting" property. Dec. 5-6. *See, e.g., In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) ("Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.").

With respect to Appellant's fact finding position, we did not find that Polston teaches a method of "forming and curing a mixture in the form of an aggregate, or in any other shape," "breaking the cured material into an aggregate," and "spreading this aggregate on a base," as Appellant contends. Appellant neither points out where we made such findings in our Decision, nor cites to teachings in Polston which support Appellant's asserted findings.

Indeed, we clearly found that:

Polston would have disclosed to one of ordinary skill in this art, as illustrated by embodiments depicted in Figure 2, a method for making a road base material by mixing, among other things, oil and gas waste materials, such as well drilling cuttings, aggregate material, and at least one binder. Polston, e.g., Abstract, col. 1, ll. 10-18 and 42-57, col. 2, ll. 1-49, col. 2, l. 66 to col. 3, l. 18, col. 4, ll. 21-24, and 35-42,

col. 7, ll. 32-36, col. 8, ll. 28-40, col. 11, ll. 26-53, and col. 12, l. 57 to col. 14, l. 7.

Dec. 7-8; *see also* Dec. 8-9. We find no teaching in Polston, including the steps of forming “stabilized road base 20” illustrated in Polston’s Figure 2, in which an aggregate containing mixture is formed and cured, the cured aggregate mixture broken, and the broken aggregate mixture spread on a road base location, as Appellant asserts.

Indeed, we found that “Polston discloses the road base material provides ‘an environmentally safe roadbed’ when the composition is applied ‘to a road base location,’ which is ‘a stabilized road base . . . of superior grade,’” and that the material is tested for “compressive strength and vheem [sic] stability.” Dec. 9.

Thus, on this basis, we explicitly stated that

we determine that as the Examiner submits, one of ordinary skill in this art routinely following the teachings of Polston would have arrived at a process for constructing road base load-bearing structures that incorporate drilling cuttings in a particulate mixture which includes stabilizers, that reasonably appears to be identical or substantially identical to the claimed process for constructing road base load-bearing structures that incorporate drilling cuttings in a particulate mixture which includes stabilizers encompassed by appealed claim 1, even though the claimed resistance to rutting property obtained with the claimed process is not expressly taught by Polston.

Dec. 14. *see, e.g., In re Spada*, 911 F.2d 705, 708-09 (Fed. Cir. 1990) (“The Board held that the compositions claimed by Spada ‘appear to be identical’ to those described by Smith. While Spada criticizes the usage of the word ‘appear’, we think that it was reasonable for the PTO to infer that the polymerization by both Smith and Spada of identical monomers, employing the same or similar

polymerization techniques, would produce polymers having the identical composition.”).

We maintain this determination on reconsideration in light of Appellant’s position.

Point 2: Apparently Insufficient Finding of Fact

Appellant submits that we “did not find as a fact that Polston . . . teaches other important limitations of claim 1, i.e., shaping and sizing the load-bearing structure and subsequently curing it so that it has the rutting resistance specified in parts (2.1.1) and (2.1.2) of claim 1, for example.” Req. 2, citing Dec. 7. Appellant contends that this “process difference” was “explained” in the “Second Supplemental Reply Brief.” Req. 2.

We find that the “Second Supplemental Reply Brief” is the “Reply Brief To The Second Corrected Supplemental Examiner’s Answer” filed January 27, 2009.¹ We fail to find in this Reply Brief the argument quoted in the Request at page 2, and thus, we have not considered it. 37 C.F.R. § 41.52(a)(1); *see above* pp. 1-2.

Appellant submits that Polston discloses a “road base composition . . . at column 4, lines 38-42 [which] is already ‘cured’, as indicated in Figure 2, and has typically been stored, as indicated at column 3, lines 26-30.” Req. 3. Thus, Appellant argues “[t]here is therefore no suggestion in [Polston] that the final size and shape of the load-bearing structure that it teaches undergoes a pozzolanic or

¹ We inadvertently indicated in our Decision that we considered the Reply Brief filed “November 1, 2009.” Dec. 3, n.2. The Reply Brief we considered was filed January 27, 2009, subsequent to the Examiner’s Answer mailed December 24, 2008, which was in response to the Appeal Brief filed November 3, 2008. *See* Dec. 3, n.2., citing p. 3 of our Remand entered August 26, 2008, in this Application.

asphaltic cure after being put into place as a load bearing structure, as required by all pending claims.” Req. 3.

We find Polston discloses “[t]he result of the novel process is to provide a novel road base composition which is made up of treated oil and gas waste material and an aggregate and to apply such composition to a road base location,” and “[t]he manufactured road base typically is mixed, processed, and likewise stored surrounded by earthen berm and on a cement and/or other physical barrier that will prevent leaching of liquid contaminates into the soil.” Polston, col. 4, ll. 38-42, and col. 3, ll. 26-30.

We found, among other findings, that “Polston discloses the binder(s) can be ‘cement, fly ash, lime, kiln dust or the like, [which] will achieve an irreversible pozzolanic chemical reaction necessary for a road base,’ and ‘[a]n asphalt emulsion may be included in the binder to manufacture asphalt stabilized road base.’ Polston col. 2, ll. 45-49.” Dec. 8. We further found that “Polston discloses the road base material provides ‘an environmentally safe roadbed’ when the composition is applied ‘to a road base location,’ which is ‘a stabilized road base . . . of superior grade . . . that will not leach’ substances in violation of the Clean Water Act.” Polston, e.g., col. 3, ll. 13-18, col. 4, ll., 21-24 and 35-42.” Dec. 9. We also found that Polston adds, among other things, Portland cement as a stabilizer and an asphalt emulsion as a binder that “results in a stabilized road bed product,” and tests the cured product for, among other things, “compressive strength.” Dec. 9-10, quoting Polston col. 8, l. 55 to col. 9, l. 31, and Fig. 2.

On this record, we determine that one of ordinary skill in this art, armed with knowledge of road construction, would have recognized from Polston’s teachings that the formation of a bound, stabilized road bed with Polston’s composition

would require shaping and sizing of Polston's composition to form the road bed which can be compression tested. Thus, contrary to Appellant's contention, knowledge of Appellant's invention would not be necessary for this person to arrive at a process for construction of a load-bearing structure following the teachings of Polston that falls within appealed claim 1. Req. 3.

Point 3: Another Apparently Insufficient Finding of Fact of Citation of Art

Appellant submits that we "apparently accepted[] only the *possibility* of making . . . a modification" in Polston's disclosure in order to arrive "at a process for constructing road base load-bearing structures . . . encompassed by appealed claim 1, even though the claimed resistance to rutting property obtained with the claimed process is not expressly taught by Polston." Req. 3, quoting Dec. 14. Appellant argues that Polston's disclosure would not have provided the suggestion and reasonable expectation of success to one of ordinary skill in this art to arrive at the claimed process encompassed by claim 1. Req. 3-4. In this respect, Appellant contends that "neither the examiner nor the Board has ever cited any evidence that it was known in the prior art that any measurement of compressive strength could be correlated with rutting resistance, except in the special case of *continuous* pavement layers," citing "footnote 1 of the Little Declaration." Req. 4. Thus, Appellant contends that we relied on "common knowledge" with respect to "resistance to rutting" without citing evidentiary support. Req. 4.

We set forth our findings leading to our determination that one of ordinary skill in this art routinely following the teachings of Polston, including the disclosed testing for compressive strength, would have arrived at the claimed process for constructing load-bearing structures falling within claim 1. Dec. 10-14. We further addressed Appellant's contrary position:

We disagree with Appellant's position that one of ordinary skill in the load-bearing structure arts, inclusive of civil engineers of ordinary skill, would not have reasonably expected to arrive at the claimed resistance to rutting property specified in claim 1. App. Br. 10-14. We agree with Appellant that, as established by Declarant Little's testimony, a civil engineer of ordinary skill would not find in Polston specific disclosure of *compress strength testing* methods or rut resistance data obtained by laboratory testing leading to the claimed resistance to rutting property. App. Br. 10-11, citing Little Decl. ¶ 8(1).

However, in this respect, we find that ASTM test methods for determining Unconfined Compress Strength (UCS) were known in the art as disclosed in the Specification. Spec., e.g., 18:22-24, 20:27-29, 25:25 to 26:12, 27: 8-11, and Table 2. Thus, one of ordinary skill in this art armed with knowledge of such known test methods would have applied the same following the direction in Polston to determine appropriate amounts of ingredients in the particulate mixtures by *compress strength testing* to arrive at the desired compress strength properties for the road base load-bearing surface, with a reasonable expectation of success in obtaining the desired properties. See, e.g., *In re O'Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988) ("For obviousness under § 103, all that is required is a reasonable expectation of success." (citations omitted)). Indeed, Appellant does not argue and Declarant Little does not attest that testing methods known in the art would be expected by one of ordinary skill in this art to require more than routine experimentation to arrive at a desired compressive strength for Polston's road base.

Thus, we are not convinced by Appellant's arguments and Declarant Little's testimony that explicit directions for load bearing and rutting resistance testing and laboratory data based thereon must be disclosed by Polston in order for one of ordinary skill in this art to follow Polston's direction to *compress strength test* the road base with a reasonable expectation of success when this person would have inferred that art recognized ASTM procedures can be used for such purposes with a reasonable expectation of success. See, e.g., *KSR*, 550 U.S. at 421; *Fritch*, 972 F.2d at 1264-65; *O'Farrell*, 853 F.2d at 903-04; *Sovich*, 769 F.2d at 742-43; *Preda*, 401 F.2d at 826-27.

We do agree with Appellant that not every road base within Polston's teachings would have the claimed rutting resistance property specified in claim 1. App. Br. 12-14. However, Appellant does not argue that a road base exhibiting the claimed resistance to rutting property cannot be obtained by routinely following Polston's process for constructing road base load-bearing structures that incorporates drilling cuttings in a particulate mixture and employing *compress strength testing* methods as directed by Polston.

Dec. 15-16.

Appellant has not explained in the Request how our opinion in these respects does not establish that one of ordinary skill in this art with knowledge of compression test methods known in the art would not have employed such methods in following the direction in Polston to conduct testing for compressive strength. Indeed, we recognized that there is no evidence in this record that the ATSM test methods employed in the Specification were known in the art to correlate to "resistance to rutting" per se. However, we also recognized that the claimed process encompassed by claim 1 is defined therein by mixing certain ingredients in amounts such that when the composition sets up as a shaped and formed load-bearing structure, that structure must exhibit compressive strength to the extent of the claimed resistance to rutting property. Dec., e.g., 5-6 and 13-16.

In other words, the limitations of claim 1 are met if one of ordinary skill in this art, routinely following the teachings of Polston, mixes the ingredients taught by Polston so as to obtain a load-bearing structure having a compressive strength at least equivalent to the claimed resistance to rutting property. Indeed, claim 1 specifies the construction of any "load bearing structure having sufficient resistance to rutting that any rut formed in such surface by 10,000 applications of a single axle load of 18,000 pounds will have a depth of rutting that is less than 1

inch,” regardless of the “suboperations” employed to prepare the mixture, not that testing for such property is part of the claimed process. *See* Dec. 6.

The fact that Appellant expressed the compressive strength requirement in terms of resistance to rutting and thus, in a manner not stated in the art, does not confer patentability. *See, e.g., In re Skoner*, 517 F.2d 947, 950-51 (CCPA 1975) (“Appellants have chosen to describe their invention in terms of certain physical characteristics. . . . Merely choosing to describe their invention in this manner does not render patentable their method which is clearly obvious in view of [the reference].” (citation omitted)). Thus, since we have no means to resolve the compress strength issue because the USPTO has no facilities to test compositions prepared according to the teachings of Polston with respect to a level resistant to rutting, it is Appellant’s burden to patentably distinguish the claimed invention over Polston. *See, e.g., Spada*, 911 F.2d at 708 (“[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.”); *In re Best*, 562 F.2d 1252, 1254-56 (CCPA 1977).² Accordingly, we remain of the view that Appellant has not carried this burden in the request.

² Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on ‘inherency’ under 35 U.S.C. § 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products. (footnote and citations omitted).

Best, 562 F.2d at 1254-56.

Point 4: Arguments Against the pertinence of Some Authorities
Applied by the Board

Appellant submits that several cases we cited are inapplicable based on Appellant's conclusion that the facts establish that the claimed invention is patentable over Polston. Req. 4-5. We disagree. *See* Dec. 14-18. We cited *Spada*, 911 F.2d at 708, and *Skoner*, 517 F.2d at 950-51. We note with respect to *Merck & Co., Inc. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) ("That the '813 patent discloses a multitude of effective combinations does not render any particular formulation less obvious. This is especially true because the claimed composition is used for the identical purpose."), that both the claimed process and those of Polston involve formulations containing the same ingredients that are used for the same purpose of forming load-bearing structures. With respect to *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980) ("[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."), a result effective variable in the claimed process and those of Polston is the compressive strength imparted by the drilling cuttings. We cited *In re O'Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988), as an example of a case illustrating the proposition that "[f]or obviousness under § 103, all that is required is a reasonable expectation of success (citations omitted)."

Point 5: Rebuttal of Other Arguments in the Opinion

Appellant submits that it is

Appellant's position . . . [and] that of Declarant Little as well: "This reference [Polston] can not give a civil engineer of ordinary skill any reasonable expectation the rutting or plastic deformation resistance required by the pending claims can be achieved by following the teachings of this reference." (p. 4-5 of the Declaration). The Board apparently believes that its knowledge of the ordinary skill of persons in the load-bearing structure arts is greater than Dr. Little's. In view

of Dr. Little's eminent qualifications, this appears to be a dubious conclusion, particularly in view of the statements of Dr. Little on pages 2-3 of the Declaration that at least three things would be required to give a civil engineer of ordinary skill such reasonable expectation. None of these things is in the Polston reference, and no prior art, excluding the specification whose claims are here on appeal, has ever been cited to show that a person of ordinary skill would known the specific correlation between rutting resistance and compressive strength, layer thickness, and resilient moduli of all of the layers in the road as taught in the specification and claimed in claims 12, 14, and 15. Without a teaching of these correlations, there is no reasonable expectation of success. [Citation omitted.]

Instead the Board has used the teachings of the specification to guide a search of the prior art in the correct direction. This is contrary to precedent. . . . The fact that the testing methods are known in the art is not helpful until one knows what and what value(s) to test for.

Req. 5-6.

Appellant further argues, with respect to our statement "Appellant does not argue that a road base exhibiting the claimed resistance to rutting property cannot be obtained by routinely following Polston's process for constructing road base load-bearing structures that incorporates drilling cuttings in a particulate mixture and employing *compress* [sic] *strength testing* methods as directed by Polston" (Dec. 16), that "[i]f the modifying phrase 'as directed by Polston' is restricted to modifying test 'methods' and if 'routinely' includes making and testing every possible variation of compressive strength, with unlimited time available, this statement may be correct." Req. 6.

We have addressed Appellant's contentions that Polston must disclose the claimed resistance to rutting property in order to be relied on under § 103(a). Req. 5-7; *see above* pp. 8-11. We disagree with Appellant's position that one of ordinary skill in this art would not have arrived at the claimed processes

encompassed by claim 1 following Polston's direction to conduct compressive testing without express disclosure of the property of resistance to rutting in Polston for reasons we have stated. *See above* pp. 8-11.

We further note here that one of ordinary skill in the art is presumed to be aware of all the pertinent prior art, and as a person of ordinary creativity in the art, is presumed to have skills apart from what Polston expressly teaches. *See, e.g., KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007); *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *In re Sovish*, 769 F.2d 738, 742 (Fed. Cir. 1985); *In re Jacoby*, 309 F.2d 513, 516 (CCPA 1962). Thus, in routinely following Polston's teachings, the person of ordinary skill in the art would have looked to tests for determining compressive strength known in the art which reasonably include the ASTM test methods as disclosed in the Specification. The fact that Appellant included such art recognized test methods in the Specification does not remove those tests from the prior art applicable to the claimed invention.

In conclusion, based on the foregoing, we have granted Appellant's Request to the extent we have reconsidered our decision, but we deny it with respect to making any change therein.

Appeal 2009-009393
Application 10/037,630

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

DENIED

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